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ABSTRACT OF THE DISCLOSURE

The present invention relates to compositions and methods comprising one or more domains of urokinase-type plasminogen activator (uPA) in an amount effective to modulate one or more of the contractility and angiogenic activity of a mammalian muscle or endothelial cell or tissue for use in the treatment of a disease or condition having as a symptom thereof one or more of abnormal muscle cell or tissue contractility and abnormal angiogenic activity. The one or more domains of uPA can be present in the inventive compositions and methods either as part of the full uPA molecule in either single chain or two chain form (scuPA or tcuPA), or as an isolated polypeptide, or a fragment of the uPA molecule (e.g., the amino terminal fragment "ATF"), or a deletion mutant of the uPA molecule. The inventive methods comprise administering to a mammal afflicted with such a disease or condition the inventive composition, and modulating one or more of the contractility and the angiogenic activity of the muscle or endothelial cell or tissue, thereby treating the disease or condition. Kits for treating such diseases are also included.